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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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# Office Action Summary

**Application No.**

10/751,410

**Applicant(s)**

SUH, JONG YEUL

**Examiner**

ASHER KHAN

**Art Unit**

4134

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 5/16/2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-24 and 27-30 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-24 and 27-30 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/S508)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Claim Rejections - 35 USC § 112***

1. Claims 1-24 and 27-30 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The limitation of "request re-transmission of the entire broadcasting program intended to record through a network without requesting transmission of a partial portion of the broadcasting program that failed to record when recording of the broadcasting program intended to record fails" as cited in claims 1 and 14 has not been disclosed in the specification. The specification disclosed request re-transmission of the entire **or partial portion** of broadcasting program when recording of the broadcasting program intended to record fails (see paragraph 0055).

***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 3, 8, 9, 12-15, 19, 23, 24, 27 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Pub. 2007/0031111 A1 to *Thiagarajan et al.* ("*Thiagarajan*").

As to claim 1, *Thiagarajan* discloses a PVR (Personal Video Recorder) system (Abstract)(Fig.3) comprising:

a channel demodulating part configured to receive and demodulate a broadcasting program on a particular channel (Tuner 306)(0037);

a storage medium configured to store the broadcasting program (0038);  
an EPG parsing part configured to extract information on the broadcasting program intended to record from a data demodulated at the channel demodulating part (Processor(s) 308)(0050)(0040);

an upload/download controlling part configured to receive the broadcasting program intended to record from the channel demodulating part, to store the broadcasting program in the storage medium (0047) to control reproduction of the broadcasting program stored in the storage medium in response to an external recording/reproduction signal, and to control the EPG parsing part (0042, 0043,0071);  
and

a re-recording processing part configured to store identifying information

for identifying a success of recording of the broadcasting program intended to record and information on the broadcasting program intended to record (0050), and to identify the identifying information (0062), to request re-transmission of the entire broadcasting program intended to record through a network when recording of the broadcasting program intended to record fails(e.g. recording is incomplete).(It is mentioned in (0066) that recording application 302 is capable of scheduling a record event to record all or entire program re-broadcast. In paragraph (0068) the inventor mentions that it may be better use of the system to record entire re-broadcast of the program rather than recording just a segments of a program, which makes it clear to one of ordinary skill in the art to choose either way to design a system i.e. a PVR system) (figure 5; 0047; 0066; 0068 and 0074).

It would have been obvious to request re-transmission of the entire broadcasting program without requesting transmission of a partial portion of the broadcasting program that failed to record when recording of the broadcasting program intended to record fails since the recording system could transmit partial portion of the broadcasting program or the entire program when recording of the program was failed(see figure 5 and 0074) and it would simplify the recording system by transmitting the entire program.

As to claim 3, *Thiagarajan* further discloses wherein the storage medium is a hard disc (0015).

As to claim 8, *Thiagarajan* further discloses wherein the re-recording processing part includes:

a recording parameter storage part configured to store identifying

information for identifying success of recording of the broadcasting program intended to record, and information on the broadcasting program intended to record (0049-0054); and a network interface part configured to identify the identifying information, to request the re- transmission of the entire broadcasting program intended to record through a network when recording of the broadcasting program intended to record fails(Fig. 4; 0066-0074).

As to claim 9, *Thiagarajan* further discloses wherein the recording parameter storage part is a ROM (Fig. 3, non-volatile memory 316) (0038).

As to claim 12, *Thiagarajan* further discloses wherein the network interface part is a LAN (Fig. 2, Ethernet 218 (Ethernet is used with a LAN) or a MODEM (Fig. 3, modem 334).

As to claim 13, *Thiagarajan* further discloses wherein the network interface part is further configured to be connected to a program server (Fig. 1, 102) (0018) or a broadcasting station for communication (Fig 1, Broadcast transmitter 130) (0021).

As to claim 14, *Thiagarajan* discloses a method for recording a video in a PVR system (Abstract) having a storage medium for storing a broadcasting program intended to record, and a re-recording processing part having a recording parameter storage part and a network interface part (Fig 3), the method comprising:

setting a recording parameter field at the recording parameter storage part, storing information on the broadcasting program intended to record and identifying information for identifying a success of recording of the broadcasting program in the

recording parameter field, according to a user's recording setting information (fig. 4;0049-0054)(0062)(0066-0070);

writing the broadcasting program on the storage medium according to the information on the broadcasting program (0066);

determining the success of recording of the broadcasting program according to the identifying information(0060); and

if the recording of the broadcasting program fails as a result of the determination, requesting re-transmission of the entire broadcasting program intended to record through the network interface part without requesting transmission of a partial portion of the broadcasting program that failed.(It is mentioned in (0066) that recording application 302 is capable of scheduling a record event to record all or entire program re-broadcast. In paragraph (0068) the inventor mentions that it may be better use of the system to record entire re-broadcast of the program rather than recording just a segments of a program, which makes it clear to one of ordinary skill in the art to choose either way to design a system i.e. a PVR system)(0047;0066;0068).

As to claim 15, *Thiagarajan* further discloses wherein the user's recording setting information is information related to at least one of a recording operation, a scheduled recording operation, and a time shift operation (Fig 5, 502).

As to claim 19, *Thiagarajan* further discloses comprising:

- (a) determining a successive recording of the broadcasting program intended to record (0066); and
- (b) changing an identifying information value stored in the recording parameter storage

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part if the recording is successful as a result of the determination, and maintaining the identifying information value stored in the recording parameter storage part as it is if the recording fails, after the step of writing the broadcasting program on the storage medium (0067-0070).

As to claim 23, *Thiagarajan* further discloses transmitting information on the broadcasting program having recording thereof failed to a program server or a broadcasting station (0066)(Fig. 1, 104,136); and

re-receiving the broadcasting program having recording thereof failed from the program server or the broadcasting station, and writing the broadcasting program having recording thereof failed, after the step of requesting re-transmission of the broadcasting program intended to record through the network interface part (0066-0070).

As to claim 24, *Thiagarajan* further discloses wherein the information on the transmitted broadcasting program is a program ID for matching to the program (Fig. 4, 405).

As to claim 27, *Thiagarajan* further discloses if recording of the broadcasting program fails as a result of the determination, renewing the information on the broadcasting program stored in the recording parameter storage part (0063-0070).

As to claim 30, *Thiagarajan* further discloses where in the re-recording processing part renews the information on the broadcasting program intended to be recorded (0066).



4. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Patent Pub. 2007/0031111 A1 to *Thiagarajan et al.* ("*Thiagarajan*") in view of U.S. Patent Pub. 2002/0141451 A1 to *Gates et al.* ("*Gates*").

As to claim 2, *Thiagarajan* further discloses wherein the channel demodulating part includes;

a channel receiving part configured to tune to, and demodulate a broadcasting signal on a particular channel (Client device 108)(0037).

*Thiagarajan* does not expressly disclose to forward in a form of a transport TP stream; and a TP processing part configured to split the TP stream from the channel receiving part into an audio PES stream, a video PES stream, and a data stream.

*Gates* discloses to forward in a form of a transport TP stream; and a TP processing part configured to split the TP stream from the channel receiving part into an audio PES stream, a video PES stream, and a data stream (0036).

At the time of invention it would have been obvious to a person of ordinary skill in the art to combine teachings of *Thiagarajan* and *Gates*. Motivation to combine would be to demultiplex the transport stream to reproduce it on reproducing medium (0036).

Therefore it would have been obvious to combine *Thiagarajan* with *Gates* to obtain the invention of claim 2.

5. Claim 4, 5, 18, 28 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Patent Pub. 2007/0031111 A1 to *Thiagarajan et al.* ("*Thiagarajan*") in view of U.S. Patent Pub. 2002/0188945 A1 to *McGee et al.* ("*McGee*")

As to claim 4, *Thiagarajan* discloses wherein the information on the broadcasting program extracted at the EPG parsing part is channel information, a record starting time of the broadcasting program intended to record (Fig 4, Program composite key 404)(0067).

*Thiagarajan* does not expressly disclose a record end time.

*McGee* discloses a record end time (0003).

At the time of invention it would have been obvious to a person of ordinary skill in the art to combine record end time information with channel information and a record starting time. Motivation to combine the elements would have been to form a unique program combination for comparison to similar program elements in EPG data in an electronic program guide to determine whether a program will be re-broadcast (*Thiagarajan*, 0050).

As to claim 5, *Thiagarajan* further discloses wherein the record starting time is a starting time of the program intended to record if the recording is a scheduled recording, and a time when a recording/time shift button is pressed if the recording is a direct recording or a time shift (0019)(0058).

As to claim 18, *Thiagarajan* the broadcasting program information includes channel information, a record starting time, and a record end time of the recording program, and the record starting time is a starting time of the program intended to

record in a case of the scheduled recording, and a time when a recording/time shift button is pressed in a case of direct recording or a time shift operation (0019)(0058).

*Thiagarajan* does not expressly disclose a record end time.

*McGee* discloses a record end time (0003).

At the time of invention it would have been obvious to a person of ordinary skill in the art to combine record end time information with channel information and a record starting time. Motivation to combine the elements would have been to form a unique program combination for comparison to similar program elements in EPG data in an electronic program guide to determine whether a program will be re-broadcast (*Thiagarajan*, 0050).

As to claim 28, *Thiagarajan* further discloses wherein the step of renewing the information on the broadcasting program stored in the recording parameter storage part further includes;

re-receiving program related information from the program server or the broadcasting station(0066); and

overwriting the program related information on a relevant position of the recording parameter storage part, and scheduling writing of the program automatically by using stored record starting time and record end time (Inherent in 0066).

*Thiagarajan* does not expressly disclose record end time.

*McGee* discloses a record end time (0003).

At the time of invention it would have been obvious to a person of ordinary skill in the art to combine record end time information with channel information and a

record starting time. Motivation to combine the elements would have been to form a unique program combination for comparison to similar program elements in EPG data in an electronic program guide to determine whether a program will be re-broadcast (*Thiagarajan*, 0050).

As to claim 29, *Thiagarajan* further discloses wherein the overwritten program related information includes channel information, a record starting time of a recording program(0050)(0066).

*Thiagarajan* does not expressly disclose a record end time.

*McGee* discloses a record end time (0003).

At the time of invention it would have been obvious to a person of ordinary skill in the art to combine record end time information with channel information and a record starting time. Motivation to combine the elements would have been to form a unique program combination for comparison to similar program elements in EPG data in an electronic program guide to determine whether a program will be re-broadcast (*Thiagarajan*, 0050).

Therefore it would have been obvious to combine *Thiagarajan* with *McGee* to obtain the invention of claims 4, 18, 28 and 29.

6. Claim 6, 7 and 20-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Patent Pub. 2007/0031111 A1 to *Thiagarajan et al.* ("*Thiagarajan*") in view of U.S. Patent Pub. 2003/0014557 A1 to *Berger et al.* ("*Berger*").

As to claim 6, *Berger* discloses wherein the upload/download controlling part is further configured to initialize a recording flag value at the re-recording processing part to a first identifying information value in response to an external recording signal, to set the first identifying information value to a second identifying information value if the recording of the broadcasting program intended to record is successful, and to maintain the first identifying value as it is if the recording of the broadcasting program intended to record fails (0056).

At the time of invention it would have been obvious to a person of ordinary skill in the art to combine the teaching of *Thiagarajan* with *Berger*. Motivation to combine the elements would have been to identify success or failure of the event (0056) the event could be something such as recording. Also by simply changing the bits system would be able to recognize if the recording was successful or unsuccessful.

As to claim 7, *Berger* further discloses wherein the upload/download controlling part is further configured to set the first identifying information value is set to '1', and the second identifying information value is reset to '0' (0056). In addition, the same motivation is used as the rejection of claim 6.

As to claim 20, *Berger* further discloses The method as claimed in claim 19, wherein the step (b) further includes: resetting the identifying information value set to '1' at the recording parameter storage part to '0' if the recording is successful as a result of the determination (0056); and maintaining the identifying information value set to '1' at the recording parameter

storage part as it is if the recording fails (0056). In addition, the same motivation is used as the rejection of claim 6.

As to claim 21, *Thiagarajan* further discloses, further comprising changing the identifying information value stored in the recording parameter storage part if there is a user's record stop request (0060).

*Thiagarajan* does not expressly disclose changing the identifying information value.

*Berger* discloses changing the identifying information value (0056). In addition, the same motivation is used as the rejection of claim 6.

As to claim 22, *Thiagarajan* discloses comprising maintaining the identifying information values of the broadcasting programs other than one program if the user requests writing of more than one program at the same time.

*Thiagarajan* does not expressly disclose identifying information other than one program to be '1'.

*Berger* discloses identifying information to be other than one program to be '1' (0056). In addition, the same motivation is used as the rejection of claim 6.

Therefore it would have been obvious to combine the teachings of *Thiagarajan* and *Berger* to obtain the invention as claimed in 6, 7 and 20-22.

7. Claim 11 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Patent Pub. 2007/0031111 A1 to *Thiagarajan et al.* ("*Thiagarajan*") in view of U.S. Patent Pub. 2002/0188945 A1 to *McGee et al.* ("*McGee*") and Patent Pub.

2004/0002987 A1 to *Clancy et al.* ("*Clancy*") and in further view of Patent Pub.

2002/0021886 A1. to *Nakajima et al.* (*Nakajima*).

As to claim 11 and 17, *Nakajima* discloses wherein the record starting time field, or the record end time field includes 4 bits of a month field, 5 bits of a day field, 5 bits of an hour field, and 6 bits of a minute field (0209).

At the time of invention it would have been obvious to a person of ordinary skill in the art to combine the teaching of *Thiagarajan* with *Berger*. Motivation to combine the elements would have been to express the fields in to binary numbers (0209) for the reason to be able to integrate the system into a digital system.

At the time of invention it would have been obvious to a person of ordinary skill in the art to combine the teaching of *Thiagarajan* with *Berger*. In addition, the same motivation is used for rejection as claim 11.

Therefore it would have been obvious to combine the teachings of *Thiagarajan* and *Nakajima* to obtain the invention as claimed in 6, 7 and 20-22.

8. Claim 10 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Patent Pub. 2007/0031111 A1 to *Thiagarajan et al.* ("*Thiagarajan*") in view of U.S. Patent Pub. 2002/0188945 A1 to *McGee et al.* ("*McGee*") and in further view of U.S. Patent Pub. 2004/0002987 A1 to *Clancy et al.* ("*Clancy*").

As to claims 10 and 16, *Thiagarajan* further discloses wherein the recording parameter storage part includes one bit of an identifying information field (unique id 405), 20 bits of a record starting time field (broadcast start time 412), and 7

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bits of a channel information field (channel number 410) (Fig 4, Program composite key 404).

*Thiagarajan* does not expressly disclose a record end time field and number of bits to be used in each field.

*McGee* discloses a record end time field (0003).

*Clancy* discloses that EPG data may be in any binary format i.e. number of bits (0080).

At the time of invention it would have been obvious to a person of ordinary skill in the art to combine the teaching of *Thiagarajan*, *McGee* and *Clancy*. Motivation to combine the three references would have been to express the EPG Data in binary to for facilitating storage and/or compression of data (0080), so the system is able to store more information and process the information faster.

Therefore it would have been obvious to combine *Thiagarajan*, *McGee* and *Clancy* to obtain the invention of claims 10 and 16.

### ***Response to Arguments***

Applicant's arguments filed on May 16, 2008 have been fully considered but they are not persuasive.

Applicants argue that *Thiagarajan* does not teach the claimed invention requests re-transmission of the entire broadcasting program intended to record without



requesting transmission of a partial portion of the broadcasting program that failed to record when there is a recording failure on page 13. The examiner disagrees with that since *Thiagarajan* teaches a recording system for requesting re-transmission of the entire broadcasting program intended to record through a network when recording of the broadcasting program intended to record fails(e.g. recording is incomplete (figure 5; 0047;0066;0068 and 0074). It would have been obvious to request re-transmission of the entire broadcasting program without requesting transmission of a partial portion of the broadcasting program that failed to record when recording of the broadcasting program intended to record fails since the recording system could transmit partial portion of the broadcasting program or the entire program when recording the program was failed (see figure 5 and 0074) and it would simplify the recording system by transmitting the entire program.

### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ASHER KHAN whose telephone number is (571)270-5203. The examiner can normally be reached on Monday-Friday 9:30 am - 5 pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lun Yi can be reached on (571)272-7671. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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Examiner, Art Unit 4134

/LUN-YI LAO/

Supervisory Patent Examiner, Art Unit 4134